Title: METHOD AND APPARATUS FOR MANUFACTURING A TRANSISTOR-OUTLINE (TO) CAN HAVING A CERAMIC HEADER

#### **REMARKS**

This responds to the Office Action mailed on October 4, 2006. By this amendment, claims 5 and 6 are amended. No claims are canceled, or added. As a result, claims 1-11 remain pending in this application. Applicant requests reconsideration of this application in view of the above amendments and the following remarks.

# Claim Objections

Claims 5 and 6 were objected to since the second occurrence of the term "a metal" should be –the metal—. The Examiner indicated that correction was required. By this amendment, claims 5 and 6 have been amended to include the term "the metal". Therefore, the objection to claims 5 and 6 are overcome.

#### Oath/Declaration

In the Office Action dated October 4, 2006, the Examiner indicated that the Oath/Declaration filed on December 11, 2003 is considered acceptable. The acceptance of the Oath/Declaration is noted with appreciation.

## §103 Rejection of the Claim

**Rejection:** Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Rabinovich (U.S.5,758,816).

Response: In order for the Examiner to establish a prima facie case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference or references must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on

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applicant's disclosure. M.P.E.P. § 2142 (citing In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)).

Claim 5, as amended, recites "A method of manufacturing a TO can comprising: placing a solder preform between a metal cover and an insulating base; and applying a current to the solder preform until the solder preform melts to seal the metal cover to the insulating base." The Rabinovich reference fails to teach or suggest applying a current to the solder preform, as recited in claim 5. The Rabinovich reference teaches passing current through the graphite heater 220. No current is applied to the solder preform until the solder preform melts to seal the metal to cover to the insulating base. Specifically, the Rabinovich reference teaches:

"When an electric current is passed through the graphite heater 200, the third fixture 100, the lenses 10, their respective first metallic surfaces and the preformed solder components 20 are all heated. A thermocouple 223 is placed in thermal communication with the components, as shown, and the temperature of the structure shown in FIG. 10 is constantly monitored as electric current is passed through the graphite heater 200. When the temperature of the third fixture 100 reaches a preselected magnitude, the electrical current passing through the graphite heater 200 is immediately turned off and a jet 220 of cold gas is caused to flow through a tube 222 and pass into thermal communication with the graphite heater 200 to rapidly cool it to a magnitude which is significantly less than the preselected temperature described above. Although the temperature control component is not shown in FIG. 10, it should be understood that any one of several commercially available devices can be used to monitor the temperature sensed by the thermal couple 223 and turn off the electrical power to the graphite heater 200 when a preselected temperature is achieved. For example, a temperature control device that is satisfactory for use to accomplish these purposes is commercially available from Omega Engineering, Inc. and identified as Model No. CN8542. The output signal from this type of device can be used to terminate the electrical current flowing through the graphite heater 200 and also to initiate the flow of cold gas 220 through tube 222." (See column 6, lines 18-46 of the Rabinovich reference) (emphasis added)

As can be seen from the above quotation from the Rabinovich reference, the electrical current is applied or passed through the graphite heater 220. There is no teaching of applying current to the solder preform. The fact a thermocouple 223 is used to monitor the temperature is also not an application of current to the solder preform.

reference:

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Furthermore, discussion in FIG. 10-12 is about making the component of FIG. 2. Therefore, the discussion of FIG. 10 also fails to teach applying a current to the solder preform until the solder preform melts to seal the metal cover to the insulating base. (Emphasis added). In FIG. 10, the discussion is directed toward making the component for later attachment and therefore there is not attacement of the component to the base. In other words, the point of FIGs. 10-12 is the formation of the component so there is no sealing of the metal cover to the insulating base, since this is performed as described in FIG. 2. Looking again at the Rabinovich

"This result is shown in FIG. 11. The third fixture 100 can be inverted as shown to cause the lenses 10 to be removed from their respective openings. When the lenses 10 are removed from the third fixture, the preformed solder components 20 will remain attached to the first metallic surfaces of the lenses 10. This creates a subassembly such as that shown in FIG. 12. The preformed solder component 20 is attached to the first metallic surface 14 of the lens 10 and can be handled as a first assembly. The first assembly can then be placed in position on the second metallic surface 16 as shown in FIG. 2. When the first assembly is placed on the second metallic surface 16, the temperature of the entire structure can be raised to a magnitude which is sufficient to melt the preformed solder component 20 completely and fuse the first metallic surface 14 to the second metallic surface 16. (See column 7, lines 8-23 of the Rabinovich reference) (emphasis added)

The Examiner has already admitted that "The embodiment of Figs. 1-2 of Rabinovich....does not disclose a step of applying a current to the solder preform until the solder preform melts to seal the metal cover to the insulating base." (see paragraph 4, page 3 of the Office Action dated October 4, 2006). The Examiner's admitted position is confirmed from the above quote which details the attachment of the component 20 to the surface (emphasis in quote above). It should be noted that no current is applied to the solder preform. As a result, the prior art reference fails to teach or suggest all the claim limitations. In addition, the Examiner also fails to set forth a reason for modifying the Rabinovich reference to yield applicant's claimed invention. As a result, the rejection of claim 5 is now overcome the Examiner's rejection under 35 USC § 103(a) as being unpatentable over Rabinovich (U.S.5,758,816).

In addition, the Examiner rejected claim 5 based soley on the Rabinovich reference.

Applicant respectfully traverses the single reference rejection under 35 U.S.C. § 103 since not all

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of the recited elements of the claims are found in the Rabinovich reference. Since all the elements of the claim are not found in the Rabinovich reference, Applicant is concerned that the Examiner may be taking official notice of the missing elements. Applicant respectfully objects to any taking of official notice with a single reference obviousness rejection and, pursuant to M.P.E.P. § 2144.03, Applicant respectfully traverses any assertion of Official Notice and requests that the Examiner cite a reference or references in support of this position.

## Allowable Subject Matter

Claims 1-4 and 6-11 were indicated as being allowed. Claim 6 was amended to overcome the Examiner's objection to that claim. The allowance fo claims 1-4 and 6-11 are noted with appreciation.

# Reservation of Rights

In the interest of clarity and brevity, Applicant may not have addressed every assertion made in the Office Action. Applicant's silence regarding any such assertion does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

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## **CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6977 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Attn-Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 4th day of January, 2007.

Name

Signature